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Policy

The U. S. Navy Medical News Letter is basically an official Medical Department publication inviting the attention of officers of the Medical Department of the Regular Navy and Naval Reserve to timely up-to-date items of official and professional interest relative to medicine, dentistry, and allied sciences. The amount of information used is only that necessary to inform adequately officers of the Medical Department of the existence and source of such information. The items used are neither intended to be nor susceptible to use by any officer as a substitute for any item or article in its original form. All readers of the News Letter are urged to obtain the original of those items of particular interest to the individual.

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Intra-ocular Acrylic Lens

The intra-ocular acrylic lens operation has now been practiced for 3-1/2 years, but it was not until March 1951 that a satisfactory lens was employed. Since then over 150 operations have been performed. The experience gained from a considerable series of cases under the care of one surgeon may now be of value, for though the lens design and general technique have not been changed many lessons have been learned.

The first and most important observation is that the artificial lens of standard design composed of Transpex and correctly inserted in an eye is well tolerated for several years. It is not yet known, of course, whether any degenerative changes will be found to occur either in the patient's eye or in the acrylic lens in 10 years or in 50 years, but at the present time there is nothing to suggest future trouble. On the contrary, the longer the lens has been in place the better it appears to be tolerated, the clearer is its surface, and the whiter the eye. This is of overwhelming importance, for had the contrary been found it might have been necessary to discard the operation or at least modify the lens or the surgical technique.

The verdict of 3-1/2 years' experience is that the intra-ocular lens operation has a definite place in ophthalmic surgery.

For the uniocular cataract it is unrivalled and may well prove to be the ultimate treatment, for binocular vision is restored. Unlike a contact glass, the intra-ocular acrylic lens causes no unnatural magnification which may prevent binocular vision, nor any sensation of a foreign body; it requires no maintenance or adjustment by the patient and does not give rise to temporary veiling. There are relatively few cataract patients who have the dexterity to insert a contact glass or the perseverance to become accustomed to the discomfort, however accurate the fit.

In senile cataract, the advantages are less obvious, for plain extraction gives the patient the two essentials, the ability to go about alone and to read.

Often, however, aphakic patients enabled to see 6/6 in the center of the field complain that "the sight is not natural."

In assessing the results; it is not right to judge solely by the central acuity of the single eye; the total visual function of the patient is the true criterion. The intra-ocular acrylic lens restores throughout the full visual field natural sight which may be quite equal to that of a normal presbyopic eye in which accommodation is lost. Furthermore, with an intra-ocular acrylic lens in one eye, both eyes can be used together until the second cataract matures. Many patients prefer binocular vision with acuity even as low as 6/12 and 6/12 to an incompatible pair of eyes, one seeing 6/12 and the other capable of 6/6 with an aphakic correction which they dislike. Among the most grateful and satisfied patients are those who have 6/18 unaided with one eye, and the ability to read newsprint without a glass with the eye with an acrylic lens.

Time has yet to show whether in cases of bilateral cataract the evident optical, cosmetic, and psychological advantages outweigh the disadvantages of extra complication and slower recovery of sight compared with the classical technique; but there is evidence, in the scores of good results and the general absence of severe complications, that in years to come, though not at present, the acrylic lens may be the operation of choice for all cataracts which are uncomplicated by severe ocular or constitutional disease. There is no indication so far that the lenticulus greatly increases the risk of late complications or that it will not last a lifetime; it seems that after full convalescence, though this may sometimes be prolonged, further trouble need not be anticipated. Several patients now have successful intra-ocular acrylic lenses in both eyes.

The lessons learned from over 100 intra-ocular acrylic lens operations are described, and a table of visual results is appended. (Brit. J. Ophthalmol., Tavistock Square, W.C. 1, London, England, Mar. 1954, H. Ridley)
(See also U.S. Navy Medical News Letters, Vol. 19, No. 4, p. 2 and Vol. 21, No. 3, p. 2)

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Treatment of Traumatic Hyphema

Traumatic hyphema occurring in nonperforating injuries to the eye is extremely common. The authors have treated 36 cases of this condition during the past 2-1/2 years. While nothing can be done to prevent such complications as iridodialysis, dislocation of the lens, traumatic cataract, rupture of the choroid, or detachment of the retina due to severe trauma at the time of the injury, an attempt should be made to prevent secondary hemorrhage into the anterior chamber with its disastrous after-effects of secondary glaucoma and blood-staining of the cornea.

All ophthalmologists have seen patients with a slight traumatic hyphema that is followed in several days by a severe secondary hemorrhage. This secondary hemorrhage is always much more severe than the primary one and usually fills the anterior chamber and causes severe secondary glaucoma.

The authors injected air into the anterior chamber in each of these 36 cases in an effort to prevent or to control secondary hemorrhage.

The rationale for this treatment was that it would be impossible for the anterior chamber to be completely filled with blood if an air bubble were present. The larger the air bubble present, the less blood could be present, and the air would protect the cornea from coming into contact with the blood and thus prevent blood staining of the cornea. In the 27 cases that had air injected before a secondary hemorrhage developed, only 2 had a secondary hemorrhage. In the remaining 9 cases of this series, the patients were seen by the authors after secondary hyphema had developed. It appears that air not only controls the secondary hemorrhage, but also prevents it.

The cause of secondary hemorrhage from the iris following contusion is not understood. It certainly occurs more frequently and more severely than following the cutting of iris vessels during operation, as in an iridectomy. One factor that may cause such severe bleeding from ruptured blood vessels is hypotony following contusion of the globe. The presence of air in the anterior chamber may increase the intra-ocular pressure enough to correct this hypotony and thus prevent secondary hemorrhage. Also, because air is compressible and distensible, its presence may prevent large fluctuation in the intra-ocular pressure.

This is in agreement with the findings of Thygeson and Beard. They reported on 13 cases of secondary hemorrhage and 11 of these occurred on the second and third days, and none after the fifth day. Rychener's findings were also in agreement with this.

Because the secondary hemorrhage occurs between the second and fifth days, the prognosis for the eye improves markedly if this period of time can be safely passed. Air is absorbed from the anterior chamber from within 2 to 4 days. If absorption takes place before the safe period has passed, the authors often re-injected air through the same corneal tract. (Am. J. Ophthalmol., Mar. 1954, J. M. Wilson, M. D., T. P. McKee, M. D., E. M. Campbell, M. D., and G. E. Miller, M. D.; 207 East Watauga Avenue, Johnson City, Tenn.)

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Three New Cycloplegic Drugs

Of a group of new parasympathomimetic-blocking agents, three appear to be effective cycloplegic drugs suitable for refraction. These drugs have been reported as cyclopentolate (Compound 75 GT), Compound 92 GT, and

Compound 93 GT. Their usage in 0.5% solution has been previously reported (cyclopentolate by Priestley and Medine, and all three compounds by Gettes and Leopold and by Stolzer). Their cycloplegic efficiency appeared greater than that of homatropine but not quite as great as that of atropine. In addition, they possess the advantage of a shorter duration of activity and an absence of local or systemic reactions. This report concerns the study of the effect of 1% solutions of the same preparations.

One percent solutions of cyclopentolate and Compounds 92 GT and 93 GT appear to be superior to the present shorter-acting cycloplegic drugs. They appear to leave, at the most, as little residual accommodation as atropine. Their cycloplegic effect is of short duration, shorter than that of homatropine or atropine. The patients can work or read the following day and children of school age can resume school work the following day. The chief handicap of maximum cycloplegia, namely, its incapacitating effect, is minimized with these newer drugs. Patients can be assured that, except for the day of their examination, no time will be lost from work. The drugs appear to be safe and can be employed wherever one would ordinarily use a cycloplegic. Of these GT compounds, only Compound 93 GT appears to be irritating subjectively. These drugs do not produce any local or systemic toxic effects.

In view of the not infrequent systemic toxic reactions seen after the use of atropine for refraction, and in view of the frequent local toxic effects of atropine after its prolonged use in treatment, atropine should eventually be replaced by these efficacious, shorter-acting parasympathomimetic-blocking agents.

Atropine should be employed for refraction only in the children of preschool age with some existing or suspicious muscle anomaly or imbalance. (Arch. Ophthalmol., Apr. 1954, B.C. Gettes, M.D.; 1930 Chestnut Street, Philadelphia 3, Pa.)

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Overtreatment Dermatitis in Skin Diseases

Overtreatment or therapeutic dermatitis results from the application, without the advice of a physician, of skin remedies the advertised actions of which are not reliable. Trivial skin rashes, irritations, and other minor injuries are made worse by the treatments. Onset cutaneous inflammations become sites of sensitization dermatitis by the use of antiseptics, germicides, and disinfectants, aided by occlusive adhesive tape dressings. Spreading and flaring of rashes and irritations result from the applied medicines. What is more, the cutaneous symptoms are heightened; a little itch becomes a severe one. In addition, dermatologic signs are worsened: erythema becomes complicated by edema; tiny vesicles become bullae. Pustulation,

with lymphangitis and adenopathy, is an everyday sequel. Most important, a dermatitis requiring several weeks to heal is converted into one requiring months. An anticlimax to the mounting costs of hospital-medical care is the large number of patients who must enter the hospital because of an explosive and universal dermatitis from drugs used on the skin.

During the last 2 years, 86 dermatologic patients were admitted. Contact dermatitis accounted for 50 cases (58% of all the admissions). Contact dermatitis was not only the most common dermatosis in the hospital, but it was consistently overtreated.

Every patient in whom contact dermatitis was suspected was placed on a carefully controlled regimen. Personal effects, cosmetics, soap, clothing, and shoes were removed from the room. Rubber sheets were taken off the beds. A colloidal bath (rolled oats or Aveeno, 4 cups to the tub) was the next step. Crusted, weeping, vesicular, pustular, or bullous areas were treated with poultices (1 cup Cream-of-Wheat cooked to make a thick paste), or with compresses (saline or Burow's solution) for 12 hours. These agents promoted drainage and freed the skin from sundry medications.

A bowl of cornstarch containing a piece of gauze for dusting the skin was placed at the bedside. This satisfied the "put something on it" impulses of the patients. The amount of cornstarch used was amazing. A little dusting was never enough. They covered themselves with it and some used it on their heads.

The next procedure was to sheath the affected skin in stockinet. It covered the hands and feet if these areas were involved. The patients were not molested further. Daily inspections were made by rolling the stockinet up or down.

Skin symptoms--itching, burning, and so on--presented no indication for the use of remedies to relieve itching. An ice bag, compress, or poultice safely controlled them. The only itching problem was in a patient addicted to phenobarbital.

Vigilance was necessary to prevent relatives or friends from bringing a pet jar or tube of some healing balm to help things along. People refer to these activities as "between treatments." They think they are aiding the physician. Hospital lotions and alcohol were kept out of the room. Bathing was not permitted. A basin of water and a wash cloth took care of essential cleansing.

An internist examined every patient. Other consultants were called, including dermatologist colleagues, in the difficult cases. Routine laboratory tests were supplemented by special examinations, including mycologic studies when indicated.

As soon as the acute symptoms and signs had subsided, the patients were discharged. The same regimen was continued at home until the skin healed. Cotton pajamas were worn. If the hands were the primary sensitization site, gloves were worn; if the feet, cotton socks and all-leather sandals.

Each patient was instructed to watch for the onset of sweating. The appearance of thermal and/or psychic sweating marked the final stages of involution. The issue that determined the final diagnosis was the involution time. This averaged 2 to 3 weeks in most of the cases. Some required a month, and others 2 months.

At the time of final discharge the tentative or etiologic diagnosis was discussed with each patient. The diagnosis would prove itself correct only if the skin remained well. A recurrence was the signal for the patient to telephone his physician. Seeing an onset eruption with a duration of 24 hours or less offers a better opportunity to make an etiologic diagnosis than seeing the eruption days, weeks, or months followings its onset. Most important, the patient does not have time to initiate a superimposed over-treatment dermatitis.

This program has proved eminently successful in finding the etiologic diagnosis in contact dermatitis. Three conclusions were drawn: (1) Symptoms produced by the skin are relieved best by eliminating exposure to irritants and sensitizers. (2) Signs quickly subside with simple protective procedures. (3) Current dermatologic proprietaries are not indicated for the symptoms and signs of contact dermatitis. (GP, Mar. 1954, L. E. Gaul, M. D.; Baptist Hospital, Evansville, Ind.)

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Sweating Test Evaluation

The Physical Medicine Service at Walter Reed Army Hospital examined 300 patients by means of the cobalt chloride sweating test. The majority of these patients had peripheral nerve injuries, and the test was confined to the upper or lower extremities. The remaining patients received combinations of trunk and extremity testing, and the major disease classifications included herniated nucleus pulposis, transverse myelitis, syringomyelia, and hysteria. Selected patients who had vascular injuries were studied in an effort to evaluate any associated sympathetic nervous system trauma, and several postlumbar or dorsal sympathectomized patients were examined in order to evaluate the extent of the operative procedure.

The cobalt chloride sweating test was considered by physiatrists, neurologists, neurosurgeons, and vascular surgeons responsible for the management of the subjects, to be sufficiently accurate in the outlining of sweat patterns to be of aid in the diagnosis of 271 of the 300 patients studied. This was not simply a clinical opinion, but was verified by other evaluations, including electromyography, electro-diagnostic tests, and surgical findings. The remaining 29 patients in whom the test was not considered accurate, presented complicating factors, the primary one being hyperkeratosis.

Although the authors believe that sufficient proof has been accumulated to indicate that the cobalt chloride sweating test meets the criteria which

they established, a complication has developed in several of the patients tested, which must be considered by all who choose to utilize this means of sweat testing. This reaction is considered to be a typical contact dermatitis provoked by the cobalt chloride. It occurred in 7 of the patients tested.

The unusual reactions described are the subject of further evaluation by the Dermatology Section of this hospital where tests have been conducted to determine the sensitivity of a large group to cobalt chloride, in varying dilutions. These tests, thus far, are inconclusive. The untoward reactions apparently represent a true contact dermatitis. The most severe reaction may have been precipitated by the length of time the cobalt chloride solution was allowed to remain in contact with the skin of a sensitive individual, because in all other reactions the patients perspired within the usual time and the material was immediately washed away.

Further study of the cobalt chloride test is being continued in an effort to evaluate more fully this type of reaction as well as the means of preventing or halting it if it does develop.

It is apparent that while the cobalt chloride test has been established as being simple to administer and accurate, and the solution easy to remove, it is also potentially damaging to the skin. Its value as a simple yet accurate test must be weighed against its possible complications. Its use will be continued by the authors, but the warning signs, which the authors believe are indicative of an untoward response, will be carefully observed while further studies are carried out. It cannot, at this time, be regarded as being a completely safe test for general use when carried out as described. Medico-legal aspects of complications are also apparent and should be considered. (Arch. Phys. Med., Mar. 1954, Capt. F. E. Vultee, MC, USA, Lt. Col. J. H. Kuitert, MC, USA, and Capt. M. P. Ladd, WMSC, (PT), USA; Walter Reed Army Hospital, Washington 12, D. C.)

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Roentgen Findings in the "Collagen" Diseases

The collagen diseases are a group of disorders characterized anatomically by generalized alterations of the connective tissue, especially of its extracellular components. The following are currently accepted as members of this group: periarteritis nodosa, disseminated lupus erythematosus, dermatomyositis, scleroderma, rheumatic fever, and rheumatoid arthritis.

The term polyarteritis is synonymous with periarteritis nodosa. Because of the predominance of vascular changes, this disorder (and, to a lesser extent, generalized lupus erythematosus) may also be referred to as visceral angiitis. Disseminated lupus erythematosus is also known as acute lupus erythematosus or generalized lupus erythematosus.

Becker, and others, suggested that the systemic manifestations of Schönlein-Henoch purpura, erythema nodosum, and certain cases of glo-

merulonephritis show similar involvement of connective tissue and may belong to this group of diseases. Ehrich and associates, on the basis of animal experiments, include serum sickness also. Kampmeier suggested that the necrotic changes found in afferent renal arteries in both malignant hypertension and periarteritis nodosa have more than coincidental relationship. Stewart believes that thromboangiitis obliterans and ulcerative colitis are also collagen diseases.

The types of collagen disease discussed in this article include periarteritis nodosa, generalized lupus erythematosus, dermatomyositis, and scleroderma. Space permits only brief mention of the two more common entities, rheumatic fever and rheumatoid arthritis.

Collagen diseases constitute an interesting group of disorders--from the clinical side because of their diagnostic and therapeutic challenge, from the pathological viewpoint because of recent interest in the intercellular substances, and from the roentgenological viewpoint because of their widespread but unfortunately nonspecific nature. The latter is particularly true of the pulmonary manifestations of the collagen diseases. The authors believe, however, that diagnostic possibilities, slim as they are, depend on an awareness of these conditions, plus a knowledge that the patient has a polysystemic disease. It is desirable that radiologists, as clinicians, be able occasionally to suggest the consideration of one of these diseases, on logical grounds, and be cognizant of the further studies, clinical, laboratory, or pathological, required to confirm the diagnosis.

From a review of their roentgenological findings, the authors believe that pulmonary changes occur more frequently in periarteritis nodosa and disseminated lupus erythematosus than one would gather from the literature. Further, from a survey of the histories of over 75 patients with established or clinically diagnosed collagen disease, the authors have the distinct impression that peptic ulcers occur with relatively greater frequency in these conditions than in the rest of the hospital population in general.

In studying a patient for possible collagen disease it is desirable that particular attention be paid to the following structures: (1) the skin and muscles, (2) the heart and pericardium, (3) the lungs and pleura, (4) the abdomen and intestinal tract, (5) the kidneys, and (6) the bones and joints.

The skin and muscles may show microscopic evidence of involvement in any of the four types of collagen disease discussed in this article. Histopathologic changes are reportedly fairly decisive in all except dermatomyositis, about which not enough is yet known; they are said to be most clear-cut in periarteritis, but there is divergence of opinion as to their clarity in scleroderma.

The cardiac and pleuropulmonary changes are many and nonspecific. Pericardial effusion, cardiac enlargement, pleural effusion, pulmonary nodular changes, and variable degrees of pulmonary edema or fibrosis may occur. These changes may be reversible.

Abdominal distention, with paralytic obstruction, may occur in the first two conditions. Renal enlargement may also be seen in these two (periarteritis nodosa and disseminated lupus erythematosus).

The intestinal tract changes are most conspicuous in scleroderma, notably in the esophagus and small intestine (variable degrees of rigidity, dilatation, and narrowing occur in about 50% of cases).

The articular and osseous changes occur in periarteritis nodosa, lupus and especially scleroderma. Roentgenologically, they are characteristic only in the latter condition. Calcinosis is also confined largely to this disorder. (Am. J. Roentgenol., Apr. 1954, L. H. Garland, M. D. and M. A. Sisson, M. D.; Department of Radiology, Stanford University Medical School, San Francisco, Calif.)

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ACTH, Cortisone, and Hydrocortisone

ACTH, the adrenocorticotropic hormone of the pituitary gland, stimulates the cortex of the adrenals to produce at least 20 different steroid compounds. Of these steroids from the adrenal cortex only 3 or 4 have been isolated in pure form and studied clinically, because they alone possess physiologic, or pharmacologic attributes.

ACTH is a water-soluble, organic secretion (a protein-polypeptide complex) from the anterior lobe of the pituitary gland where it is elaborated normally by the basophils.

Information is meager on the metabolism and excretion of the adrenocorticotropic hormone (ACTH) from the pituitary. It may be inactivated by enzymes or catabolized in the body tissues. Fifty percent of an amount injected intravenously usually disappears from the blood stream in 5-1/2 minutes. Prolonged therapy with ACTH will produce signs of Cushing's syndrome (hyperadrenocorticism). Conversely, if ACTH is too rapidly withdrawn after a course of therapy, the signs and symptoms of adrenal insufficiency (Addison's disease) may appear, because the normal pituitary gland becomes relatively inert during therapy with exogenous ACTH and does not regain physiologic "tone" immediately. It is, therefore, advisable to taper off dosage slowly or to increase the time interval between doses when discontinuing a prolonged course of ACTH.

Cortisone or compound E is a steroid (11-dehydro-17-hydroxycorticosterone). Cortisone (compound E) possesses physiologic characteristics identical with compound F, both of which initiate complex metabolic actions on cellular enzyme systems, on electrolyte and water metabolism, and on renal homeostasis. It should be emphasized that cortisone is ineffective in modifying the acute renal lesions in glomerulonephritis, in lupus erythematosus, and in polyarteritis nodosa. On the contrary, the corticosteroids may even aggravate azotemia and pre-existing hypertension. The physio-

logic, pharmacologic, and toxicologic actions of the corticosteroids are induced chiefly by the increase of compound F in the circulating blood, whether the patient received ACTH or cortisone or hydrocortisone.

Hydrocortisone is compound F (17-hydroxycorticosterone). Its beneficial effect in rheumatoid arthritis was described by Hench in 1950. Compound F is the principal hormone recoverable from adrenal vein blood, from adrenal gland perfusates, and from peripheral blood. Its physiologic actions are similar to those caused by cortisone.

ACTH, cortisone, and hydrocortisone have common pharmacologic actions. They are crucial mediators of essential metabolic processes, and they may be used judiciously in a wide therapeutic range. As a matter of record, they often are lifesaving in adrenal crises and in adrenocortical insufficiency. However, they can also produce severe toxic reactions which may lead to fatal complications. Moreover, they do not guarantee "biologic cure" of any known disease process but serve solely as "substitution agents." Their mode of action on inflammatory processes and on diseases of connective tissue still remains unknown. Nor are the effects of the adrenocorticosteroids on the other hormones of the anterior pituitary gland and other endocrine targets entirely clear. Presumably they depress the secretion of the follicle-stimulating hormone, the thyroid-stimulating hormone, the growth hormone, and the gonadotropins. Apparently they have no specific action on the secretions of the posterior lobe of the pituitary gland. The physiologic effects on specific metabolic functions are almost identical whether one administers ACTH, cortisone, or hydrocortisone. These effects apparently result from an increase in the circulating level of compound F. It is, therefore, logical to speak of them as resulting from the administration of cortisone alone, because compound E induces physiologic changes indistinguishable from those produced by compound F.

Although they cannot and do not provide biologic cure for any single disease entity, in certain specific conditions (adrenal crises, acute panhypopituitarism) they may be lifesaving. In addition, they may be used as specific substitution therapy in certain endocrinopathies, and their effect may be very beneficial to the patient with certain allergic manifestations. Finally, there is another group of patients with chronic disease in whom the steroids may delay or modify destructive or fibrotic sequelae, as in rheumatic fever or in rheumatoid arthritis. But their therapeutic advantages must be balanced against their constant toxicologic dangers. Physiologically speaking, for every beneficial clinical action there is a corresponding equal and opposite reaction.

The indiscriminate use of these powerful therapeutic agents, therefore, is mentioned only to be condemned. (Postgraduate Medicine, Apr. 1954, CAPT C.C. Shaw (MC) USN, U.S. Naval Hospital, Oakland, Calif.)

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Gaucher's Disease

Gaucher's disease is a rare, heredofamilial disorder of cerebroside metabolism characterized clinically in the adult by an insidious onset, splenomegaly, pigmentation, pingueculae, a protracted course, and usually some hematologic abnormality. In an effort to determine the incidence and nature of these hematologic variations and, in addition, to study the effects of splenectomy on patients having this disease, the authors reviewed all proved cases of Gaucher's disease seen at the Mayo Clinic through the year 1950. Twenty-nine such cases were found. Because the majority of clinical reports dealing with this disease contain only small numbers of cases, it also was thought that the experience with a larger group should be made available. In all cases the diagnosis was established by aspiration of sternal marrow, splenic puncture, examination of splenic tissue after splenectomy, or by necropsy.

In the early part of the twentieth century the general opinion was that more females than males had Gaucher's disease, but later studies suggested that the distribution between sexes is equal. Fifteen of the 29 cases reported were female and 14 were male. The youngest was 2-1/2 years of age and the oldest 56 years at the time of their first visit to the clinic. It is of interest to note that 9 patients were 40 years of age or older.

In every instance the onset of the disease was gradual. Vague feelings of weakness, fatigue, exhaustion, and tiredness over long periods preceded, and later accompanied, the more definite signs of splenomegaly, hepatomegaly, and changes in the skin. Easy bruising and epistaxis were presenting complaints in 12 cases. The most common complaints, however, were those referable to a gradually enlarging spleen. Generally speaking, splenomegaly did not cause much discomfort in the early stages of the disease, and most patients were aware only of a painless mass in the left upper quadrant of the abdomen. In the later stages, the spleen usually became so large that distress from it was noted by every patient. Pain over a region of osseous involvement was reported by 2 patients whose roentgenograms exhibited evidence of changes typical of Gaucher's disease, but not by all of those so afflicted.

It was of interest that in 24 of the 29 patients (83%) some abnormality, such as anemia, leukopenia, or thrombocytopenia, or a combination of these, was indicated by the peripheral blood picture; in the aggregate, these abnormalities were second in frequency to splenomegaly only.

Fifteen patients underwent splenectomy, fortuitously dividing the study into 2 equal groups. Splenectomy was advised mainly because of an uncomfortably enlarging spleen or signs of "hypersplenism."

In some cases roentgen therapy to an enlarged spleen resulted in diminution of the size of the organ, with a consequent partial or complete alleviation of abdominal discomfort. Hematinics were not of value. Transfusions for anemia were given when indicated.

To compare the long-range benefits of splenectomy and conservative therapy, follow-up studies were attempted in all 29 cases. However, in only 21 instances (72%) were the authors successful. The series is too small to be subjected to statistical analysis, but it is interesting to note that among the 14 patients who did not undergo splenectomy 1 patient was known to be alive 12 years after his visit to the clinic and 2 patients were alive 14 years after their visits. Among the 15 patients on whom splenectomy was performed, 2 were known to be alive 20 years after their visit to the clinic, and 1 each 16 years, 14 years, 13 years, and 11 years after their initial visits. (Ann. Int. Med., Mar. 1954, A.S. Medoff, M.D. and E.D. Bayrd, M.D.; Mayo Clinic, Rochester, Minn.)

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Gamma Globulin in the Prevention of Infectious Hepatitis

Although the value of gamma globulin in the prevention of infectious hepatitis has been repeatedly shown, the minimal effective dose remains to be determined. This article discusses the use of small doses of gamma globulin in preventing the spread of infectious hepatitis in family outbreaks. Its use in institutional outbreaks will be discussed later.

This report represents a continuation of the initial study on family outbreaks of infectious hepatitis using a smaller dosage of gamma globulin.

All the families included in this study were seen in the Children's Medical Center from January to July 1953. The criteria for diagnosis in the initial case in each family were the same as those previously presented. In addition to the clinical diagnosis the condition was confirmed in each case by positive liver function tests. None of the patients had received injections or transfusions within 6 months of the onset of symptoms.

After the initial case had been diagnosed, alternate members of the family were given 0.01 cc. of gamma globulin per pound of body weight. The remaining members of the family served as controls. For selection to be completely unbiased the youngest member of each even-numbered family in the order of appearance in the clinic was designated to receive gamma globulin. The second youngest member of that family was designated as a control, the third youngest received gamma globulin, and so forth. In all odd-numbered families the youngest member was designated as a control, the second youngest received gamma globulin, the third youngest served as a control, and so forth.

None of the patients included in this study required hospitalization so that all other members of the families were theoretically exposed. All families were studied for at least 3 months after the occurrence of the initial case. All secondary cases were diagnosed solely on the development of clinical jaundice, which was confirmed by serum bilirubin determinations.

A total of 54 cases of infectious hepatitis occurred among the 40 families.

The results from this group of families confirms the authors' previous finding that the exposure of children to hepatitis within family groups results in a surprisingly high incidence of secondary cases. The attack rate of 27% among untreated children in this series compares with one of 35% in the previous series. It is of interest that the administration of gamma globulin to half the exposed adults and children in the families did not materially reduce the incidence of the disease among the untreated children.

The data demonstrate that the administration of 0.01 cc. per pound of body weight was highly effective in preventing the spread of infectious hepatitis among exposed adults and children within the family. Only 1 patient among 95 adults and children receiving this amount of gamma globulin contracted hepatitis, and in that case jaundice appeared only 6 days after injection. This dosage appears to be as effective as the 0.1 cc. per pound of body weight previously reported. Because gamma globulin given in a dose of 0.005 cc. per pound of body weight did not appear to be completely effective in an institutional outbreak, 0.01 cc. appears to represent the dosage of choice at present. (New England J. Med., Mar. 11, 1954, D. Yi-Yung Hsia, M.D., M. Lonsway, Jr., M.D., and S.S. Gellis, M.D.; Department of Pediatrics, Harvard Medical School, Boston, Mass.)

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Inhalation of Dihydrostreptomycin Dust

Antibiotics given in the form of dry dust aerosols, offer a simple therapeutic approach to many of the common diseases of the respiratory tract. The recent favorable reports in the literature on the inhalation of therapeutic agents (particularly penicillin) both by dry dust and moist aerosolization have instigated the present clinical investigation of the inhalation of dry dust dihydrostreptomycin sulfate in the treatment of pulmonary disease.

The investigation had 4 objectives: (1) To determine the effectiveness of dihydrostreptomycin dust therapy upon the bacterial flora of the respiratory tract; (2) by means of blood level assays, to show the absorbability of dihydrostreptomycin sulfate into the circulatory system--to determine whether its action is purely topical or systemic or both; (3) to note the frequency of allergic responses and the extent of untoward reactions of this drug when inhaled; and (4) to observe clinically its effects on the symptomatology and course of acute and chronic pulmonary diseases.

In the early investigations of penicillin mist and dust inhalations, the number of allergies and sensitivities was reported as 3 to 6%. However, following more extensive use of the method, local and generalized allergic reactions were found to be much higher (25 to 40%). An even larger number

of reactions was anticipated with streptomycin than with penicillin; for this reason the inhalation of streptomycin was discontinued until a less sensitizing form, dihydrostreptomycin sulfate, was introduced.

Of the 342 persons with various affections of the upper and lower respiratory tract who were treated with dihydrostreptomycin sulfate aerosol, 125 had bronchiectasis. The remainder were treated for bronchitis, infections of the upper respiratory tract, sinusitis, the "common cold" syndrome of rhinitis and nasopharyngitis, pulmonary tuberculosis with tracheal lesions, and as a prophylaxis following and preliminary to certain surgical procedures. Seventy-two were hospitalized and 270 were ambulatory.

Those with chronic conditions received 300 mg. of dihydrostreptomycin sulfate per day (6 dispolators) for 10 days. Patients with acute conditions and minor infections (upper respiratory infections, et cetera) received 3 days of treatment depending on the particular condition involved.

Approximately 10% (27) inhaled less than 6 cartridges (300 mg.) The largest amount of the dust inhaled by 1 patient was 30 grams in an 8-week period.

This form of therapy is of greatest value for the bronchiectatic patient. In the preparation for pulmonary resection of those who have bronchiectasis, it is effective in providing a reduction of the volume of pulmonary secretions and a sterilization of the bronchial tree.

Cases of bronchiectasis not suitable for surgery can frequently be controlled by the use of dihydrostreptomycin dust aerosol, although it is obvious that there is no reversal of the underlying pathologic changes. Early in the course of the experimental procedure it was planned to use both penicillin and dihydrostreptomycin for these cases. However, the infrequency of allergic reactions and favorable clinical response led to the use of dihydrostreptomycin sulfate dust alone. Penicillin inhalations have been discarded and dihydrostreptomycin dust alone has been used, especially for office cases and out-patients.

Almost without exception, the bronchiectatic patient feels better following these treatments. His chest feels subjectively clearer; the sputum is less viscid and more readily expectorated, the amount is usually diminished, and the odor is less offensive. Many can work without fatigue after a period of treatment with the dust.

It is obvious that the primary bronchial dilatation of bronchiectasis will not be affected by nebulization therapy and that those persons who have bronchial dilatation will still be subject to all the hazards of a deformed bronchial tree. If patients are to retain the benefits obtained from a course of nebulization it is probable that they will have to continue periodic courses of treatment indefinitely.

Children (even those who are refractory) are willing to take the inhalation treatments of dihydrostreptomycin and need no urging to continue the therapy.

Chronic bronchitis is another condition which improves markedly with aerosol therapy using dihydrostreptomycin dust. In cases of nonspecific bronchitis, including bronchiectasis, it proved to be the most satisfactory and effective method of treatment; in a large majority of cases, it reduced cough and expectoration markedly. In acute tuberculous bronchitis and tracheitis, when secondary infection was not a factor, the results were disappointing; it was definitely less effective than intramuscular injections of streptomycin. The results in allergic bronchitis were not spectacular; however, it prevented secondary infections and some improvement in symptoms was noted.

In asthmatic cases, the results were not good; occasionally an improvement was noted when there was bacterial invasion.

Virus diseases, fungal diseases, and respiratory diseases due to chemical agents were not affected by penicillin or dihydrostreptomycin aerosols, except insofar as secondary invaders were eliminated from the picture.

In acute bacterial infections such as nasopharyngitis, sinusitis, laryngitis, and acute tracheobronchitis, dihydrostreptomycin dust aerosol appeared to reduce the length and severity of the disease.

Dihydrostreptomycin dust inhalations were used in the preoperative and postoperative management of persons with diseases of the chest and of other surgical patients in whom pulmonary infection existed or appeared to be developing. (Dis. Chest, Mar. 1954, M. Karp, M.D. E.E. Avery, M.D., T.R. Hudson, M.D., and J.R. Head, M.D.; Northwestern University Medical School, Chicago, Ill.)

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Atomic Energy Experience

Eight years ago atomic energy was almost unknown to the majority of the population. At present it has concerned and is concerning hundreds of thousands of the population and may well concern even more as time passes.

There is no opportunity to cover all the aspects of atomic energy that are of importance or of interest to medical groups, so the author simply selected three of these.

First is the external use of radiocobalt as a substitute for radium in the external and implantation treatment of tumors. Radiocobalt is used exactly as radium is and can be produced at about one-thousandth of the cost of radium, and it can be made many times as radioactive for a given mass as the naturally occurring radium. It has the disadvantage of a relatively short half-life, so that in utilizing cobalt as a source for the gamma rays desired for treatment purposes, its half-life of only 5-1/2 years makes it necessary to provide for replacement of at least a portion of the charge.

Three radioactive isotopes have acquired particular popularity for internal use. The first of these, radioactive phosphorus, is the treatment

of choice in polycythemia vera. It is also a useful means of therapy in the ordinary types of chronic leukemia.

Another important isotope is radioactive iodine. Using Geiger counters in shielded boxes, it is possible to note the amount of radioiodine localized in the thyroid and the portions of the thyroid in which it is localized, thus obtaining an accurate diagnosis of the activity of the thyroid gland. Radioiodine can be used therapeutically in several ways.

Another useful isotope is radioactive gold, which can be injected intraperitoneally or intrapleurally to control fluid formation due to metastatic growth.

As other radioactive isotopes become more widely used, as certainly they will, their application will be reported in the medical journals.

The second aspect of atomic energy is that of industrial medicine and public health. The atomic energy business is big business with literally thousands of employees.

In any utilization of fissionable material, whether in a sudden explosion or in controlled form for the production of thermal energy or power, radioactive products are formed by the reactions that occur. These radioactive ashes of atomic activity are real hazards that have to be guarded against. Moreover, the manufacture and purification of the materials that are fissionable in themselves, uranium and plutonium, are also hazardous from the standpoint of chronic exposure to radiation.

Fortunately there is a very wide gap between the amount of radioactivity that can be detected and the amount of radioactivity that is harmful. So long as the activity is controlled (by the use of Geiger counters, the electroscope, photographic film, and other means) the types of exposures to which workmen or others may possibly be subjected can be easily checked and controlled.

What are the injuries to watch for in the industrial utilization of atomic energy? They are essentially the effects of chronic radiation, and they are manifested in several ways, depending on the character of the radiation and on the degree of exposure to that radiation. If the radiation is external and moderately penetrating, the bone marrow and particularly the white blood cells of the bone marrow are the targets. The danger is in the development of aplastic anemia or leukemia. From the standpoint of the more penetrating types of radiation, as from radiocobalt and some of the other fission products that give off relatively penetrating radiation, the danger is to the internal organs. If the radiation is soft the damage is to the skin, and radiation dermatitis or radiation carcinoma are the conditions to guard against.

If the material, particularly fission products, is inhaled or ingested, the damage usually occurs after absorption and, again, is to bone marrow or to bone. With some of the less soluble substances the danger is to the lungs themselves.

These hazards are all known, all guarded against, and the degree of protection attained thus far has been very satisfactory in the experience of the Atomic Energy Commission.

The third phase of atomic energy is the responsibility of the physician from the civil defense standpoint, that is, what he needs to know to care for the victims of an atomic explosion, or of enemy action.

The tissues of the body most sensitive to radiation injury are the white blood cells and the bone marrow. When the white cell count is down or absent, antibiotics are required to bridge the absence of these cells and to protect against infection.

The white cell count returns rather slowly. Those Japanese who survived for 4 to 5 months after the explosions at Hiroshima and Nagasaki returned almost entirely to normal and very few have had any trouble since that time. Some developed leukemia; others, because of the radiation effect, developed cataracts, but these are relatively few compared with the large number who survived without sequelae. So, by and large, those persons who can be kept alive for 4 or 5 months will in all probability do well subsequently.

Next to the problem of the low white cell count and infection is that of the hemorrhagic diathesis which results chiefly from the thrombocytopenia, although hepatic malfunction and disturbances of fibrinogen formation and of the prothrombin and heparin balance are also causative factors.

The most important therapeutic points to remember are (1) the control of infection, (2) the replacement of the missing blood cells, and (3) the replacement of fibrinogen. Therapy by mouth will be of very little value to the majority of survivors, because their intestinal tracts will be seriously damaged, and they will be nauseated, vomiting, and suffering from intense diarrhea.

If there is a combination of burn and radiation injury, patients do much worse than with either alone; that is, a sublethal burn and sublethal radiation when combined will usually result in a fatal outcome for the patient.

If an atomic disaster occurs it will be on a very large scale and a considerable number of physicians, nurses, and relief workers will be brought in from other areas. There will be no opportunity for instruction and it is for this reason that the author has outlined the few therapeutic principles that are established at the present time.

Unfortunately, there is, as yet, no specific agent against radiation, but in the event of a large scale explosion, the physician can do much to help the victims of such a disaster. (Postgraduate Medicine, Mar. 1954, S. Warren, M. D. ; Harvard Medical School, Boston, Mass.)

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Segmental Resection in Pulmonary Tuberculosis

The role played by segmental resection in the over-all treatment of pulmonary tuberculosis has gone through a period of development similar to other surgical procedures which have been introduced for the control of this disease. Since 1946 the authors have used this operation in the treatment of pulmonary tuberculosis; first, in a limited way, and gradually with widening indications for its employment. During this period, the authors developed certain definite concepts concerning the use of this surgical procedure, and it is believed that in certain instances the indications for segmental resection are sharp and clear cut. In a number of cases, however, there is some question whether or not segmental resection will prove to be the procedure of choice.

The present experience consists of a series of 121 cases of pulmonary tuberculosis in which segmental (or localized) resection of tuberculous lesions was performed.

The term "segmental resection" is now being used for the anatomic excision of a segment of the lung, as well as the simple excision of subsegments or portions of a segment of the lung.

The authors believe that for practical purposes resection of total segments, subsegments, or localized resection of lung tissue should be considered together. If less than one entire lobe of the lung is removed, it is impractical to consider in separate categories varying amounts of lung tissue resected in less than one segment.

The basic objective of segmental resection in pulmonary tuberculosis is the excision of the actively diseased portions of the lung with the maximum conservation of normal functioning pulmonary tissue. Thus, segmental resection will find its greatest effectiveness in early and moderately advanced pulmonary tuberculosis. In this situation, it should be possible to remove all of the active tuberculous lesions without the need of extensive ancillary collapse measures.

In far advanced pulmonary tuberculosis, segmental resection can be employed in a limited number of cases to remove the cavitary lesions, relying on the effective control of the caseous and noncavitary active disease by bed rest, chemotherapy, and secondary collapse measures.

Segmental resection is particularly advisable in the cases in which, because of the low pulmonary reserve, it is essential to conserve functioning pulmonary tissue.

Segmental resection is performed most successfully when the acute phase of the tuberculosis has subsided, the disease process has been stabilized, and the patient has been able to mobilize a maximum resistance against the tubercle bacillus. Thus, the patient should be a "good chronic," a term used at one time to describe the patient who was considered to represent an ideal candidate for thoracoplasty.

The introduction of antimicrobial therapy has greatly reduced the duration of the period of bed rest necessary to stabilize the disease and build up the maximum resistance. All of the patients in this series, except the earlier ones, have had chemotherapy and bed rest prior to surgery, with the exception of those with diagnostic problems. It is believed that the use of long-term chemotherapy with the use of streptomycin, para-aminosalicylic acid (PAS), or isoniazid, in pairs or all together, has greatly improved the results.

Segmental resection is coming to occupy an important position in the surgical treatment of pulmonary tuberculosis. It has its greatest field of usefulness in early and moderately advanced disease. With early diagnosis, it is anticipated that more patients will be considered suitable for pulmonary resection. Such early diagnosis can be accomplished by mass roentgenographic surveys and similar routine examinations of persons admitted to general hospitals, and by a general educational program to alert the patient and the practicing physician to the problems of early diagnosis. With the increased use of such measures, the present availability of resectional procedures offers considerable hope for the future control of tuberculosis.

If the indications and requirements for segmental resection which have been outlined in this article are rigidly adhered to, it is believed that this form of treatment is ideal because it conserves pulmonary tissue; makes the arrest of the disease permanent; offers minimal thoracic cage deformity; and effects this with minimal expenditure of time for the patient.

In instances of active disease and open cavities, the indications, as outlined, have proved quite satisfactory. However, in the case of the small residual pulmonary lesion in a patient who has had chemotherapy and is apparently well, the authors believe there is much to be learned. The ultimate disposition of these lesions will depend upon long-term follow-up studies in operative and nonoperative cases. (Am. Rev. Tuberc., Apr. 1954, L. A. Brewer, III, H. W. Harrison, R. P. Smith, and A. G. Bai; Veterans Administration Hospital, San Fernando, Calif.)

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Antibiotics in Incomplete Abortions

The seriousness of incomplete abortion with its complications is reflected in all maternal mortality studies. The records of these studies indicate a declining morbidity and mortality rate due to abortions. This has been achieved by efforts directed toward replacement of lost blood, prevention and control of infection, and early emptying of the uterus when the abortion was incomplete. Hemorrhage, though often alarming, is rarely the cause of maternal death, while infection, when present and uncontrolled, is commonly the source of dysfunction, disability, and occasionally death. Evacuation of the uterus is the most effective means of

reducing hemorrhage, but much disagreement has been expressed as to how and when this procedure should be attempted. Prevention and control of infection remain the most important considerations in improved management of the incomplete abortion.

To determine the role of antibiotics in the management of abortions, 946 consecutive patients with incomplete abortions were studied. There were 741 cases without infection and 205 cases with infection. Only hospitalized patients were used in this study. Many more patients with abortions came to the emergency room, were examined, given antibiotics and oxytocics, kept under observation for 4 to 6 hours, classified as having complete and uninfected abortions, and sent home. An abortion was classified as incomplete when a pregnancy of 20 weeks or less had been partially terminated. This was determined by the finding of tissue in the lower genital tract on examination or by removal of placental tissue surgically.

The authors' data do not give a clear picture of prevention of infection in incomplete abortions. In the 741 uninfected cases antibiotics were given to 308 on admission, while 433 did not receive the drugs. No uninfected case became infected after admission regardless of drug administration. It appears that, if blood loss is controlled in aseptic cases and the uterus promptly evacuated, antibiotics should be unnecessary. The incidence of puerperal infection, however, can be reduced in term pregnancy with long labors and ruptured membranes by the use of these drugs. Thus, it is to be expected that the incidence of sepsis in abortions should also be lessened, because the infecting organisms are usually the same.

Two hundred and five cases of incomplete abortion were classified as infected.

The degree of advancement and severity of the clinical picture produced by infection in abortions has been classified by the authors after Burnett, as follows:

Type I: Infection limited to the uterus.

Type II: Extrauterine spread of infection to the structures of pelvic cavity only.

Type III: Cases in which infection has become extrapelvic, such as generalized peritonitis, septicemia, et cetera.

Determination of causative bacteria was not always possible even in Type II and Type III cases. In the advanced cases with abscess formation and subsequent drainage, however, cultures indicated mixed growth with Bacterium coli predominating. Pyogenic staphylococci and nonhemolytic streptococci were the second and third most common organisms found, respectively.

Because of the frequency of mixed infections in advanced, incomplete septic abortions, the use of antibiotics in combination is often desirable. Clinical experience has shown that in most Type I cases with mixed infections, a single antibiotic, preferably penicillin, is all that is necessary. If, after 48 hours of penicillin therapy, clinical response suggests that one

antibiotic is insufficient, reports on sensitivity studies should be available to determine which additional antibiotic should be used. Dowling and associates advocated combination of antibiotics in staphylococcic infections and emphasized the diminishing frequency of development of resistant strains. In cases diagnosed as Type II or III at the time of admission, combination antibiotics, such as penicillin and aureomycin, should be given initially.

Antibiotics, administered early, lower mortality and morbidity rates and reduce hospital stay. With antibiotics, surgical evacuation of the uterus can be done safely when infection is limited to the uterus. A more aggressive approach to surgical exploration and abscess drainage can be taken in advanced infections, even in generalized peritonitis, when antibiotics are given. (Am. J. Obst. & Gynec., Apr. 1954, W. N. Jones, M. D., E. H. Howe, M. D., and J. H. French, M. D.; Department of Gynecology, Medical College of Alabama, Birmingham, Ala.)

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The Stitt Award

The Association of Military Surgeons announces a notable addition to the numbers of awards available to the membership in recognition and reward of medical accomplishment.

The officials of the Pfizer Laboratories of New York have tendered the award in accordance with the terms formulated by Mr. A. E. Coakley, Washington representative of the firm, and the officers of the Association. The award has been accepted by Surgeon General L. A. Scheele, USPHS, President of the Association.

It is stipulated that the award shall go to the member of the Association of Military Surgeons who makes the most outstanding contribution in the field of antibiotics in the preceding year. This stipulated year will probably be held to be that between the annual meetings, which is the period of office of the president. An Awards Committee of the Association will select the recipient. The Award will consist of an honorarium of $500., a metal scroll provided by the donor firm, and a life membership in the Association of Military Surgeons.

In naming the Award it was considered that a medical officer of the Navy should be so honored and the name of Rear Admiral Edward R. Stitt came immediately to mind. It will thus be known as the Stitt Award.

Edward Rhodes Stitt rates well this distinction. A native of North Carolina and a graduate of the Medical School of the University of Pennsylvania, he entered the Medical Corps of the Navy in 1889 and served for 42 years, a service culminating in 8 years as Surgeon General. Admiral Stitt early interested himself in tropical medicine and won an international reputation as an expert in this field. The fruits of years of study and research are recorded in 2 textbooks, which have gone through several editions. He

found time for instructing in his specialty at the two Washington medical schools and at Jefferson in Philadelphia. He also taught at the Naval Medical School in Washington and for years was its head. His outstanding work won recognition in the form of honorary degrees from a number of educational institutions throughout the country. In 1925 he was president of the Association of Military Surgeons and in 1942 he was awarded the Gorgas Medal for his accomplishments in tropical medicine. Admiral Stitt died in November 1948.

The first presentation of the Stitt Award will be made by a member of the Pfizer Laboratories at the Honors Night Dinner of the Association next November. (Mil. Surgeon, Apr. 1954, Editorial)

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Coccidioidomycosis Therapy

Information received from the U.S. Naval Hospital, St. Albans, N.Y., describes the successful treatment of this disease with 2-aminostilbamidine. This drug was made available to the staff of this hospital through the courtesy of Doctor I. Snapper of New York, who has had extensive experience with stilbamidine compounds in the treatment of leishmaniasis and multiple myeloma. The mode of action of 2-aminostilbamidine is thought to be by inhibition of the enzyme system essential to growth and reproduction of the fungi. In vitro experiments have shown that 2-hydroxystilbamidine is most effective against blastomycosis and 2-aminostilbamidine is more potent against coccidioidomycosis. This has been confirmed by clinical experience. These 2 compounds have been found to be free of any severe toxic effects on the liver, kidneys, or nervous system, in the usual therapeutic dosage.

These compounds are available for patients treated at this hospital through Doctor Snapper who controls the drug in this country. (Letter, dated 4 Mar 1954, to Chief, BuMed from CO, NH, St. Albans, N.Y.)
(See Medical News Letter, Vol. 23, No. 7, p. 4)

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Postgraduate Training in Preventive Medicine

Medical officers of the Regular Navy, Lieutenant Commander or below, who have had sea or foreign duty and who desire a career in preventive medicine are invited to make immediate application for 1 academic year of postgraduate training beginning in September 1954 or early October 1954 in an accredited school of Public Health leading to the degree of Master of Public Health and satisfying the academic requirements of the American Board of

Preventive Medicine, Inc. Applications should be forwarded as soon as possible to the Chief of the Bureau of Medicine and Surgery, via the commanding officer, making reference to this article, and should be accompanied by an appropriate obligated service agreement.

There is a need for medical officers trained in epidemiology which is the basic discipline of preventive medicine, and which deals with the determination of causes of disease or disability in populations and with the designing and application of preventive or control measures or measures for the promotion of health. Opportunity is afforded at several schools of Public Health to include training in industrial medicine as a minor field of instruction concomitantly with the epidemiology major.

Among the interesting assignments available to young medical officers who successfully complete the course are: (1) preventive medicine units, ashore, and the fleet epidemic disease control unit; (2) medical research units; (3) preventive medicine duties in the Bureau of Medicine and Surgery, district, fleet, and type command staffs; (4) special epidemiologic field and laboratory investigations or research; and (5) in various naval schools as instructors in such subjects as epidemiology, environmental health, preventive medicine, and related laboratory sciences. For those who minor in industrial medicine, there are numerous opportunities for assignment as industrial medical officers.

The broad knowledge and experience to be gained in a successful career in epidemiology and occupational medicine in the Navy provides outstanding preparation for the administrative responsibilities to be assumed with advancement in rank through the senior grades.

The courses are to be given at the School of Public Health, Harvard University, Boston, Mass.; School of Public Health, Pittsburgh University, Pittsburgh, Pa.; School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.; School of Public Health, University of North Caroline, Chapel Hill, N. C.; and at several other accredited schools of Public Health. (PrevMed and ProfDivs, BuMed)

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Training Courses for USNR Male Medical Personnel, Fourth Quarter Fiscal Year 1954

Training courses of 2 weeks' duration for Naval Reserve male medical personnel available during the fourth quarter, Fiscal Year 1954, are as follows:

Insect and Rodent Control. --A class is scheduled to convene at the U. S. Naval Air Station, Jacksonville, Fla., on the first and third Wednesday of each month. The 1st, 3rd, 4th, 5th, 6th, 8th, and 9th Naval Districts and the Potomac River Naval Command have been assigned a quota for this course.

Malariology and Insect Control. --A course is scheduled to be conducted at the U. S. Naval Air Station, Alameda, Calif., for the benefit of male medical personnel residing in the 11th, 12th, and 13th Naval Districts. Convening dates may be obtained from the Commanding Officer, Naval Air Station, Alameda, Calif.

These courses have been designed to provide active duty for training, information, and recommended techniques to be employed in specialized fields closely related to naval medicine which are not readily available to such personnel in their civilian pursuits, but invaluable to their respective function in the event of mobilization. Eligible personnel who desire to attend these courses in a pay status should submit their request to the Commandant of their home naval district at the earliest practicable date. Attendance at these courses will not, in any way, increase the reservist's vulnerability for orders to extended active duty. (ResDiv, BuMed)

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From the Note Book

1. A long, distinguished naval career ended on 1 May 1954, when Rear Admiral C. J. Brown (MC) USN, Deputy Surgeon General of the Navy was placed on the retired list of officers of the Navy. Admiral Brown is a Fellow of the American College of Surgeons and a Diplomate of the American Board of Otolaryngology; a member of the American Academy of Ophthalmology and Otolaryngology; the American Medical Association, and Nu Sigma Nu and Alpha Omega Alpha medical fraternities. His official address is Plum City, Wisc. Admiral Brown's plans for retirement are not definite at this time. (TIO, BuMed)

2. Rear Admiral Lamont Pugh (MC) USN, Surgeon General of the Navy, and Doctor H. T. Karsner, Research Advisor to the Surgeon General, attended the 1954 Annual Meeting of the National Board of Medical Examiners held in Philadelphia on 2 May 1954. (TIO, BuMed)

3. Rear Admiral B. W. Hogan (MC) USN, Pacific Fleet Surgeon, and a former Commanding Officer of the Naval Medical School and Naval Hospital, NNMC, Bethesda, Md., reported to the Bureau of Medicine and Surgery on 30 April 1954 and assumed duties as Deputy Surgeon General of the Navy. (TIO, BuMed)

4. The Surgeon General of the Navy, Rear Admiral Lamont Pugh (MC) USN, left Washington about 7 May 1954 to attend a medical planning conference of senior medical representatives of the NATO nations held in Paris, France, 10-12 May 1954. He was accompanied by LCDR R. T. Brooks (MSC) USN, his Executive Assistant. (TIO, BuMed)

5. Rear Admiral D. W. Ryan (DC) USN, Assistant Chief for Dentistry and Chief of the Dental Division, represented the Navy at the Annual Meeting of the Southern California State Dental Association held in Los Angeles, Calif, 3-5 May 1954. (TIO, BuMed)

6. Captain C. P. Phoebus (MC) USN, Member, and Commander R. L. Christy (MC) USN, Deputy Member, represented the Navy at the Fifth Meeting of the Aeromedical Panel, NATO Advisory Group for Aeronautical Research and Development held at The Hague, Netherlands, 3-8 May 1954. (TIO, BuMed)

7. On 5 April 1954, Captain W. M. Silliphant (MC) USN, Deputy Director, Armed Forces Institute of Pathology, addressed the staff of the U. S. Naval Hospital, Philadelphia, Pa., on the subject of Epidemic Hemorrhagic Fever. On 7 April 1954, the Annual Joint Meeting of the Philadelphia County Dental Society and the staff of the hospital was held. Dr. H. K. Cooper discussed "The Cleft Palate Problem" On 9 April 1954, Dr. H. T. Karsner, Research Advisor to the Surgeon General, visited the hospital and gave a lecture illustrated by slides on Naval Medical Research. (CO, USNH, Philadelphia, Pa.)

8. Seven naval hospitals were included in the recently published lists of hospitals approved by the Council on Dental Education, American Dental Association, for rotating dental internships and oral surgery residency training. The 7 hospitals are: NH, Oakland, Calif.; NH, San Diego, Calif.; NH, Great Lakes, Ill.; NH, Chelsea, Mass.; NH, St. Albans, N. Y.; NH, Philadelphia, Pa.; and NH, Portsmouth, Va. The Naval Dental School, NNMC, Bethesda, Md., was approved for residency training in Oral Pathology. (TIO, BuMed)

9. Captain A. H. Grunewald (DC) USN, and CDR G. H. Bonnette (DC) USN, of the Great Lakes Naval Hospital presented clinics on the program of the Wisconsin State Dental Society which was held in Milwaukee, Wisc., 20-22 April 1954. Captain Grunewald discussed the "Construction and Insertion of Acrylic Resin Calvarium Plates" and Commander Bonnette discussed "Management of Impacted Mandibular Third Molars." (TIO, BuMed)

10. Reserve retirement point credits may be earned by Reserve Medical Corps officers on inactive duty who attend the sessions of the Section on Military Medicine during the annual meeting of the American Medical Association, 23-25 June 1954, San Francisco, Calif. This authorization covers eligible physicians who are Medical Corps officers of the U. S. Army, Navy, and Air Force Reserves. (PIO, DOD)

11. The Navy Medical Department conducted the Eighth Interagency Institute for Federal Hospital Administrators and Executives during the period 20 April through 7 May 1954 at the NNMC, Bethesda, Md. The Institute, under the auspices of the Interagency Committee on Training and Education of Federal Hospital Administrative Personnel, is an advanced postgraduate course of instruction and is not a basic course in hospital administration. (TIO, BuMed)

12. The first allotment of gamma globulin for use against poliomyelitis became available to all State health departments on 7 April. The second allotment will be ready for distribution on or about 1 June. State health departments have been instructed to submit requests for gamma globulin for use against poliomyelitis to: Division of Civilian Health Requirements, Public Health Service, Department of Health, Education, and Welfare, Washington 25, D.C. (PHS, Dept. H.E.W.)

13. Degenerative lung disease includes diffuse hypertrophic emphysema, bullous emphysema, and "vanishing" or "cotton-candy" lung. These clinical entities are various stages of one disease process having a common pathological factor, namely, obliterative vascular disease of both the bronchial and pulmonary arterial systems. (Dis. Chest, Apr. 1954, G. L. Crenshaw, M.D.)

14. A case of bronchogenic epidermoid carcinoma with metastasis to the choroid is presented. The choroidal metastasis simulated a primary tumor on ophthalmoscopic examination. Histologically the choroidal tumor was highly anaplastic and gave no clue as to the primary site. (Arch. Ophthalmol., Apr. 1954, A.S. Haft, M.D. and B. Worken, M.D.)

15. In the American Journal of Clinical Pathology for Feb. 1954, CDR J. J. Engelfried (MSC) USN reports a series of 9,600 blood transfusions without serious reactions in the entire series. The report emanated from the U.S. Naval Hospital, Oakland, Calif.

16. The occurrence of pregnancy after a woman has had a cancer is not often encountered. Primarily this is due to the age of the patient when cancer is first detected. Secondarily the treatment of cancer to be effective is necessarily destructive. Ten women who had cancers and still were able to become pregnant are reported in the American Journal of Obstetrics and Gynecology for April 1954 by W.B. Thompson, M.D.

17. A mass antimalarial therapy program was instituted in transports of the MSTS using primoquine. After 17 months' operation a material reduction in the number of relapses of Korean vivax malaria occurring in the United States was demonstrated. (J.A.M.A., Apr. 14, 1954, CAPT C.P. Archambeault (MC) USN)

18. A classification of ovarian tumors is presented which meets practical teaching needs. It is flexible enough to encompass every tumor of the ovary in 1 of the 10 categories listed. (M. Ann., District of Columbia, Apr. 1954, R. Bieren, M.D.)

19. Forty-seven patients with paroxysmal auricular tachycardia seen in the author's private practice have been studied and the observations are reported in the Annals of Internal Medicine for March 1954 by G.M. Jones, M.D.

20. Armed Forces Talk, No. 466, dated 19 Feb 1954, is an excellent issue addressed especially to the minority of service personnel who menace life and property when driving a privately owned vehicle.

21. The following excerpt is reprinted from OpNav Notice 12190, dated 22 Mar 1954: "It is the policy of the Chief of Naval Operations to cooperate with State and local public officials to the fullest extent practicable with a view toward preventing motor vehicle accidents. This policy is applicable to the operation of government and privately owned vehicles of Navy and civilian personnel." (BuMed Information Memo, 15 Apr 1954)

22. "When you step into your vehicle, leave your false pride and vanity behind; it's not a competition you're going into. Don't weave in and out of traffic. Don't race at every traffic light. Not only is this poor driving, but it needlessly costs money in wear and tear. Don't insist on asserting "your rights." It doesn't always pay to be first. The smooth driver has a certain sportsmanlike attitude about him. He yields the "Right of Way" because, in driving, courtesy to others means safety for all." (Author unknown) (BuMed Information Memo)

23. Doctor Howard T. Karsner, Research Advisor to the Surgeon General of the Navy, has been re-elected Chairman of the Advisory Medical Board of the Leonard Wood Memorial (the American Leprosy Foundation). The Advisory Medical Board meets annually. Its function is to draft guide lines for the Memorial's research which is aimed at the cure and rehabilitation of leprosy patients. (TIO, BuMed)

24. The National Bureau of Standards has been the official custodian of the nation's standard of radioactivity since 1926 when the United States Government received its first calibrated radium sample. In 1932 another sample was received and these two have been used continuously to calibrate and compare all of the radium produced and sold in this country. (NBS)

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BUMED NOTICE 4063 26 Mar 1954

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: Food Sanitation Training Program

Ref: (a) SecNavInst 4063.1
(b) NavMed P-1333, Instructor's Guide--Sanitary Food Service
(c) NavPers 91921, Instruction in Sanitary Precautions for Food-Service Personnel

This notice invites the attention of commanding officers and personnel engaged in conducting the subject programs to the standardized training aids available.

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BUMED NOTICE 6700 30 Mar 1954

From: Chief, Bureau of Medicine and Surgery
To: Ships and Stations Having Medical/Dental Personnel Regularly Assigned

Subj: Antibiotics; extension of potency and/or disposition of

Ref: (a) Medical and Dental Materiel Bulletin #40 dtd 1 March 1954

This notice promulgates instructions for extension of potency period and/or disposition of antibiotics in verification of similar information contained in reference (a).

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BUMED INSTRUCTION 7303.8 2 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: Hospital Ships and Stations Having Medical/Dental Personnel Regularly Assigned Except Recruiting Stations, Reserve Training Centers and Diplomatic Duty Activities

Subj: Allotment close-outs; change in method of processing

Ref: (a) Paragraph 032075, NavCompt Manual
(b) Paragraph 023001, NavCompt Manual

This instruction brings to the attention of addressees the change in the procedure prescribed for closing allotments as set forth in reference (a).

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BUMED NOTICE 4700 5 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: All Activities Under Management Control of the Bureau of Medicine and Surgery

Subj: BuMed Instruction 4700.1B CH 1 (Specific work requests; procedure for preparation and submission of)

Encl: (1) Subject change

This notice promulgates Change No. 1 to BuMed Inst. 4700.1B. Specific work requests for fiscal year 1955 are due in the Bureau on 15 May 1954.

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BUMED INSTRUCTION 7303.9 7 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: Activities under the management control and/or financial responsibility of the Bureau of Medicine and Surgery

Subj: Annual estimates of requirements, appropriation 17_1002 Medical Care, Navy, 195_

Ref: (a) BuMed Instruction 4210.1A
(b) BuMed Instruction 7303.5
(c) BuMed Instruction 4442.1
(d) BuMed Instruction 4700.1B
(e) BuMed Instruction 7303.7
(f) BuMed Instruction 7300.1
(g) BuMed Instruction 6700.4A
(h) Navy Comptroller Manual, Volume 2, Chapter 3

Encl: (1) Schedule of Apportionment Request by Object Class

This instruction modifies the procedure used in the preparation of annual estimates of requirements under the appropriation Medical Care, Navy. BuMed Instruction 7303.2 is cancelled.

BUMED INSTRUCTION 7303.10 8 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: Stations Having Medical/Dental Personnel Regularly Assigned (Less Activities Under the Management Control and/or Financial Responsibility of BuMed)

Subj: Annual estimates of requirements, appropriation 17_1002, Medical Care, Navy, 195_

Ref: (a) Navy Comptroller Manual, Volume 2, Chapter 3
(b) BuMed Instruction 4210.1A
(c) BuMed Instruction 7303.5
(d) BuMed Instruction 4442.1
(e) BuMed Instruction 7300.1

Encl.: (1) Schedule of Apportionment Request by Object Class

This instruction modifies the current procedure used in the preparation of annual estimates of requirements under the appropriation Medical Care, Navy. BuMed Instruction 7303.2 is cancelled.

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BUMED INSTRUCTION 6700.6 14 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: All Continental Stations Having Medical Corps Personnel Regularly Assigned

Subj: Conversion of medical equipment to the "Pin-Index Safety System for Flush Type Valves"

This instruction promulgates instructions to continental activities for converting anesthesia apparatus and other items of medical equipment utilizing flush type medical gas cylinders to the "Pin-Index Safety System for Flush Type Cylinder Valves." BuMed Notice 6700 dated 29 Oct 1953 is cancelled.

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BUMED INSTRUCTION 11330.1 16 Apr 1954

From: Chief, Bureau of Medicine and Surgery
To: All Shore Activities

Subj: Fluoridation of water supplies to reduce dental caries

This instruction sets forth the policy of the Bureau of Medicine and Surgery with respect to the fluoridation of local water supplies in Naval and Marine Corps shore activities.

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Change of Address

Please forward requests for change of address for the News Letter to: Commanding Officer, U.S. Naval Medical School, National Naval Medical Center, Bethesda 14, Md., giving full name, rank, corps, and old and new addresses.

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The printing of this publication has been approved by the Director of the Bureau of the Budget, June 23, 1952.

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PREVENTIVE MEDICINE SECTION

Venereal Disease Control

Management of Saprophytic Spirochetal Balanitis

Saprophytic spirochetal balanitis is suggested when the darkfield examination of superficial penile erosions reveals large numbers of saprophytic spirochetes. Even though a few organisms morphologically similar to Treponema pallidum are present, so long as they are found to be associated with the obviously nonpathogenic spirochetes, the diagnosis of syphilis should not be made. If the serologic test for syphilis (STS) is negative, a

local application of 2 cc. of aqueous penicillin solution of 20,000 units per cubic centimeter should be made for 10 to 15 minutes on 2 successive days. If the lesion is syphilitic, the saprophytic organisms will be eliminated so that within several days after the application T. pallidum will again be present and can be identified unequivocally.

The patient should return monthly for 4 months following treatment for a serologic test for syphilis. He should be warned to report promptly if secondary lesions develop. The need for cleanliness should be stressed.

* * * * * *

Erroneously Diagnosed Darkfield Positive Primary Syphilis

Although the incidence of syphilis reported for U. S. naval forces in the Far East is remarkably low, usually less than 1 per thousand per annum, it has been suggested that this incidence may be erroneously high, perhaps double or more the true incidence. One source of information in the Far East reports that a majority of cases admitted with a diagnosis of darkfield positive primary syphilis were demonstrated to be infections due to Borrelia vincentii and not to Treponema pallidum. Great care should be taken to differentiate T. pallidum from similar saprophytic organisms. Further, the possibility should always be considered that both infections may be present, and adequate laboratory and follow-up examinations should be made as described in the article, "Management of Saprophytic Spirochetal Balanitis," which appears in the Preventive Medicine Section of this issue of the News Letter.

* * * * * *

Use of the Smear in Diagnosing Gonorrhea

Fleet Epidemic Disease Control Unit No. 2 has been evaluating the smear as a laboratory method of diagnosing gonorrhea on board ships in the Far East. During this study, it was found that when the smear method was used by experienced and adequately trained personnel it proved to be an accurate diagnostic procedure comparing favorably with culture methods.

Diagnostic accuracy is frequently reflected by the ratio of the number of gonorrheal discharges reported to the number of nongonococcal urethral discharges reported. When the diagnosis of gonorrhea is confirmed by culture as performed by Fleet Epidemic Disease Control Unit No. 2, or on board some larger ships where adequately trained laboratory personnel prepare and read the smears, the cases of nongonococcal urethritis outnumber the cases of gonorrhea as much as 2 to 1 or more. However, some smaller vessels seldom report nongonococcal urethritis, although they frequently report relatively large numbers of cases of gonorrhea.

Inaccuracy in diagnosing gonorrhea contributes to confusion in determining incidence, in prescribing proper treatment, and in evaluating response to treatment. For example, nongonococcal urethritis cases misdiagnosed as gonorrhea are frequently treated with penicillin. As such cases do not respond to penicillin therapy, they mistakenly are believed to represent cases of "penicillin resistant" gonorrhea. While the possibility of resistant strains of gonorrhea exists, it must be kept in mind that to date resistance has not been confirmed. Before diagnosing penicillin-resistant gonorrhea, the assistance of a laboratory prepared to do more specialized bacteriological work should be requested.

It has been demonstrated by personnel of Fleet Epidemic Disease Control Unit No. 2 and others that smears can be used with satisfactory accuracy in making the diagnosis of gonorrhea, if only those smears showing intracellular gram-negative diplococci are called positive.

Recently, personnel of the Unit upon request have been assigned to ships for the purpose of studying the urethritides by smear and culture and to train shipboard laboratory personnel. The following has been extracted from a letter of appreciation from the medical officer of a large carrier to the Officer in Charge of Fleet Epidemic Disease Control Unit No. 2:

"I wish to take this opportunity to express the sincere appreciation of the Medical Department of this vessel for the assistance provided by you in supplying special diagnostic facilities to augment our venereal disease control program.

"The initial impact of the venereal disease situation in the Far East was somewhat overwhelming due to being under-staffed with hospital corpsmen. The services of one of your laboratory technicians and the specialized diagnostic aids were of great benefit in establishing more accurate diagnostic procedures and in confirming the efficacy of treatment provided.

"It is recommended that similar specialized diagnostic assistance, if possible, be provided all major vessels newly arriving in Far Eastern waters. This aid to any venereal disease control program is invaluable."

It is possible that many ships in the Far East may wish to avail themselves of the training and other services of Fleet Epidemic Disease Control Unit No. 2. It is suggested that requests for assistance from the Unit be addressed to the Force Medical Officer, Commander Naval Forces, Far East, Fleet Post Office, San Francisco, Calif.

* * * * * *

The Current Concept of Nongonococcal Urethritis

Definition. --The term "nongonococcal urethritis" ordinarily is used to designate conditions other than gonorrhea which result in discharge from the urethra but which have no readily demonstrable etiology. Actually the

term is usually a misnomer, as most discharges from the urethra, not due to gonorrhea, originate primarily in the upper urogenital tract and not within the urethra.

Etiology of discharges from the urethra. --Ordinarily, a discharge from the urethra in the male can be traced to one of the following sources: the prostate, Cowper's glands, seminal vesicles, or the urethra. Discharges from the urogenital tract are either normal secretions or the result of inflammation. Usually, inflammation is due to infection or trauma or to incomplete drainage of the affected part.

Differential diagnosis. --Good medical practice requires that an attempt be made to identify the source and the etiology of any discharge from the urethra not considered as normal. Laboratory procedures offer a satisfactory means of accomplishing this. Generally, in the absence of signs of acute prostatic infection which is usually manifested by fever, rectal and perineal pain, and difficult urination, the procedure outlined below may be followed in making a differential diagnosis in the male:

Step 1. A microscopic examination of the urethral discharge should be made:

> If very few pus cells per high power field are present, it is probably normal secretion such as mucus, semen, prostatic fluid, et cetera, which may be specifically identified by cellular elements present.
>
> If many pus cells per high power field are present, the examiner should proceed to Step 2.

Step 2. The two-glass urine test should be performed after the patient has voided in each of two glasses. The glass containing the initial stream of urine should be designated as glass #1. After centrifugation, the sediment of both glasses of urine should be examined microscopically for pus cells.

> If glass #1 and glass #2 both contain numerous pus cells, there is probably a pyelitis, cystitis, or other infection of the upper urinary tract.
>
> If glass #1 contains many pus cells and glass #2 contains very few, there is usually no infection of the upper urinary tract (kidneys, bladder, et cetera). The examiner should proceed to Step 3.

Step 3. The patient should urinate to flush the urethra free of pus. Then the prostate should be massaged gently, and the expressed fluid should be examined microscopically.

If the prostatic fluid is normal, prostatitis is ordinarily excluded. Therefore, the source of the discharge is a urethritis. In such a case the examiner should proceed to Step 4 (a).

If the prostatic fluid is purulent, prostatitis is present, but coincident urethritis is not excluded. Therefore, the examiner should proceed with Step 4 (b).

Step 4 (a). The following procedure should be used if the patient has been found to have a urethritis. Smears, culture (where possible), and "hanging drop" preparation (for Trichomonas vaginalis) of the urethral discharge should be prepared.

If a pathogenic organism is identified (gonococcus, staphylococcus, et cetera), the diagnosis of urethritis due to the specific organism may be made using, as appropriate, one of the following diagnostic numbers with the corresponding title:

0303, Urethritis, acute, due to gonococcus

1Bxy, Urethritis, acute or chronic, nongonoccic (Specify organism)

If no organism thought to be the etiological agent is identified, the history and/or physical examination usually will reveal the urethritis to be due to trauma (mechanical or chemical) or to obstruction (anatomical defect or foreign body). One of the following diagnostic numbers with corresponding title should be used as appropriate:

6072, Urethritis, acute, nonvenereal (state cause)

6073, Urethritis, chronic, nonvenereal (state cause and specify as anterior or posterior)

Step 4 (b). The following procedure should be used if the patient is found to have a prostatitis (urethritis is not excluded). Smears, cultures, and "hanging drop" preparation (for T. vaginalis) of both the prostatic fluid and the urethral discharge should be prepared.

If the bacteriological and/or parasitological findings from studies of the prostatic fluid differ from those of the urethral discharge, the condition is probably prostatitis and coincident urethritis. In such cases, the urethritis and prostatitis should be considered separately in diagnosing and treating the patient. Step 4 (a) should be followed in determining the etiology of the urethritis. The following paragraph deals with the determination of the etiology of the prostatitis.

If the bacteriological and/or parasitological findings are the same for both the prostatic fluid and the urethral discharge, consider the condition, for all practical purposes, as prostatitis only.

If pathogenic organisms are identified in the prostatic fluid, the diagnosis of prostatitis, due to the specific organisms found, should be made. If the patient is admitted to the Sick List, one of the following diagnostic numbers with corresponding title should be used:

0301, Prostatitis, gonococcic (Specify as acute or chronic)
6111, Prostatitis, acute, nongonococcic; specify organism
6112, Prostatitis, chronic, nongonococcic; specify organism

If no organism thought to be the etiological agent is identified in the prostatic fluid, the prostatitis may be the result of irritation from the products of the decomposition of prostatic fluid which may occur in the collecting ducts with incomplete evacuation of the gland. Diagnosis No. 6112, prostatitis, chronic, nongonococcic (no organism found) may be made if the patient is admitted to the Sick List.

Treatment of condition causing urethral discharge:

If only normal secretions are found, no treatment is necessary; the patient should be reassured.

If urethritis is found, treatment is indicated only if an organism is identified as the etiological agent.

If no organism is isolated after repeated, careful laboratory studies, no antibiotic, or chemo-therapeutic treatment is necessary. However, rest and abstinence from alcohol and from sexual intercourse are indicated.

If the gonococcus is found to be the etiological agent, treat with procaine penicillin G in oil (PAM), 600,000 units.

If other pathogenic bacterium is found, treat with:
Aureomycin, 500 mg. $\overline{q}$ 6 hours for 3 to 5 days or
Terramycin, 500 mg. $\overline{q}$ 6 hours for 3 to 5 days

If Trichomonas vaginalis is found, treat with:
Aureomycin, 500 mg. $\overline{q}$ 6 hours for 4 days

If prostatitis is found, specific drug therapy is indicated as above only when the invading organism can be identified; however, medicaments are usually ineffective in chronic infections. If the patient has either very mild symptoms or none at all, the less treatment the better. Chronic prostatitis is, in itself, not a serious disease. Frequent rough massage damages the prostate and may cause acute prostatitis. Massage, if used, should not be employed more often than once a week and then only in a gentle manner. Because prolonged or intensive sexual stimulation tends to irritate the prostate, it should be avoided, as should sexual intercourse. Coffee and alcohol should be prohibited, due to their adverse effects, and the patient should be encouraged to rest as much as possible, to follow regular habits, and to maintain a well-balanced diet. Reassurance is quite important in preventing these patients from becoming neurotic.

Summary.--As ordinarily used, the term "nongonococcal urethritis" is a misnomer. In the male most discharges from the urethra, not due to gonorrhea, originate primarily in the prostate and/or seminal vesicles and not within the urethra. The source and etiology of discharges from the urethra may be determined by laboratory procedures. Conditions resulting in urethral discharges should be diagnosed according to etiology and so reported, where required. Treatment of urethritis is indicated only if specific organisms are identified as the etiological agents. Rest and abstinence from alcohol and sexual intercourse is indicated in all cases of urethritis and/or prostatitis. Specific drug therapy is indicated in prostatitis only when the invading organism can be identified; medicaments are usually ineffective in chronic infections. Reassurance of the patient is important.

Communicable Disease Control

Zoonoses

More than 80 diseases--zoonoses--can be transmitted to man by domestic or wild animals. Bovine tuberculosis is responsible, in some countries, for more than 10% of all cases of human tuberculosis. Brucellosis can be ruinous for agricultural economy besides causing a debilitating disease in man. Leptospirosis--the scourge of rice-growing areas--also affects butchers, millers, farmers, and owners of pets (dogs). Q-fever is frequent among butchers, shepherds, and veterinarians. Rabies is still a serious problem in many parts of the world. These are some of the zoonoses studied in Monograph Series, No. 19, "Advances in the Control of Zoonoses," published by the World Health Organization.

What are zoonoses? The term "zoonoses," although fairly new in the vocabulary of public health and veterinary medicine, is a useful one to de-

note diseases of animals transmitted to man. The WHO monograph mentions more than 80 zoonoses. It cites the principal opinions expressed by 50 medical and veterinary specialists from 20 countries who met in Vienna in November 1952 under the auspices of the WHO Regional Office for Europe, and of the United Nations Food and Agriculture Organization (FAO). WHO and FAO were already collaborating in this field when they brought a joint expert committee together in 1950 in Geneva. The report of these experts showed that, at that time, 27 of 80 or so zoonoses mentioned by them were transmitted to man by livestock (cows and oxen, pigs, horses, et cetera), 26 by dogs, 14 by cats, and the remainder by different forms of wildlife. (News, Pan-American Sanitary Bureau, Regional Office of the World Health Organization, Geneva, Feb. 18, 1954)

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Correction

In the article, "Enteric Pathogen Survey Among Recruits," Vol. 23, No. 7, p. 39, the number of paracolon cultures isolated totalled 266 instead of 2.

General Sanitation

Trichinosis Warning

In February of this year the U. S. Public Health Service noted the possibility of trichinosis in raw beefsteak when ground in a grinder in which pork has been ground. The Public Health Service cited a report of the State of Maine Bureau of Health concerning the discovery of 6 cases of trichinosis in a Maine county during the last week in January. The report of the Maine Bureau of Health stated that the 6 cases were scattered among several families and probably were not caused by the ingestion of any one lot of infested meat. Four of the cases, it appeared, probably resulted from bad habits in handling and eating meat. These bad habits were not new, and it is possible that some one shipment of heavily infested pork may suddenly have brought about a particularly dangerous situation in the area and produced these cases.

It is known that beef ground in the same grinder in which infested pork has been ground may be contaminated with trichinae if the grinder was not sterilized after the pork was ground. Such sterilization has not always been carried out in every meat market in the area in which these cases appeared.

The Maine Bureau of Health cited as a possible cause of one or more of these cases the failure to wash the hands properly after handling raw pork for cooking. If the pork is trichinous, it is possible for the hands to become contaminated.

A third possible cause cited was the habit of eating raw or inadequately cooked meat. Two of the patients are known to have been in the habit of eating

raw hamburger and a third may possibly have eaten raw pork, because he is known to be fond of meat.

Two of the patients had eaten "strong tasting" meat balls and spaghetti in the same restaurant not long before they both manifested symptoms. One of these patients had no likely source of infection other than these meat balls, but the second had been in the habit of eating raw hamburger at home.

Cases like these emphasize the importance of proper habits of handling and eating food. Thorough washing of grinders and other utensils with boiling water is carried on in some well-managed meat markets and should be the rule in all. Care in preparation, and the final precaution--thorough cooking--will render meat safe in the home or restaurant.

As to the habit of eating raw meat, those who indulge in this practice should remember that raw ground beef may carry trichinae if the beef has been contaminated by infested pork.

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